Amendments to the Specification

Please replace paragraph [0069] with the following amended paragraph:

[0069] A method comprising the following steps is particularly suitable:

a. a cyclohexane-1,4-dione protected by the groups S¹ and S² according to formula II is reacted in the presence of a compound of formula HNR⁰¹R⁰² with a cyanide, preferably potassium cyanide, to form a protected N-substituted 1-amino-4-oxo-cyclohexanecarbonitrile compound corresponding to formula III;

$$S^{1} \longrightarrow S^{2}$$

$$III$$

$$III$$

$$III$$

optionally, the compound is then acylated, alkylated or sulfonated in any sequence and optionally repeatedly and/or, in the case of compounds where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H protected by a protective group, a protective group is removed at least once and optionally acylated, alkylated or sulfonated and/or, in the case of a compound where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H, a protective group is introduced at least once and optionally acylated, alkylated or sulfonated,

b. the aminonitrile according to formula III is reacted with organometallic reagents, preferably Grignard or organolithium reagents, having the formula metal-R³ to form a compound according to formula IVa;

optionally, the compound is then acylated, alkylated or sulfonated in any sequence and optionally repeatedly and/or, in the case of compounds where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H protected by a protective group, a protective group is removed at least once and optionally acylated, alkylated or sulfonated and/or, in the case of a compound where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H, a protective group is introduced at least once and optionally acylated, alkylated or sulfonated,

the protective groups S¹ and S² are removed according to formula III on the compound according to formula IVa to form a 4-substituted 4aminocyclohexanone compound according to formula IV;

c.

$$R^{01} \xrightarrow{R}^{02} R^{02}$$

$$S^{1} \xrightarrow{O} S^{2}$$

$$IVa$$

$$IVa$$

$$R^{02} \xrightarrow{R^{02}} R^{3}$$

$$IV$$

optionally, the compound is then acylated, alkylated or sulfonated in any sequence and optionally repeatedly and/or, in the case of compounds where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H protected by a protective group, a protective group is removed at least once and optionally acylated, alkylated or sulfonated and/or, in the case of a compound where R^{01} and/or R^{02} and/or $[[R^{06}]]$ $\underline{R^6}$ = H, a protective group is introduced at least once and optionally acylated, alkylated or sulfonated,

d. the 4-substituted 4-aminocyclohexanone compound according to formula IV is reacted with organometallic reagents, preferably Grignard or organolithium reagents, having the formula metal-R⁰⁴ to form a compound according to formula V;

optionally, the compound is then acylated, alkylated or sulfonated in any sequence and optionally repeatedly and/or, in the case of compounds where R^{01} and/or R^{02} and/or R^{04} and/or R^{05} and/or $[R^{06}]$ \underline{R}^{6} = H protected by a protective group, a protective group is removed at least once and optionally acylated, alkylated or sulfonated and/or, in the case of a compound where R^{01} and/or R^{02} and/or R^{04} and/or R^{05} and/or $[R^{06}]$ \underline{R}^{6} = H, a protective group is introduced at least once and optionally acylated, alkylated or sulfonated,

wherein R^1 , R^2 , R^3 and R^4 have the meaning given in claim 1 and

R⁰¹ and R⁰² independently of one another are selected from H; H provided with a protective group; respectively saturated or unsaturated, branched or unbranched, singly \mathbf{or} multiply substituted unsubstituted C_{1-8} -alkyl C₃₋₈-cycloalkyl; \mathbf{or} respectively singly or multiply substituted or unsubstituted aryl or heteroaryl; or respectively singly or multiply substituted or unsubstituted aryl bound via C₁₋₃-alkylene, C₃₋₈-cycloalkyl or heteroaryl;

or the radicals R⁰¹ and R⁰² together form a ring and represent CH₂CH₂OCH₂CH₂, CH₂CH₂NR⁰⁵CH₂CH₂ or (CH₂)₃₋₆,

where R⁰⁵ is selected from H; H provided with a protective group; respectively saturated or unsaturated, branched or unbranched, singly or multiply substituted or unsubstituted C₁₋₈-alkyl or C₃₋₈-cycloalkyl; respectively singly or multiply substituted or unsubstituted aryl or heteroaryl; or respectively singly or multiply substituted or unsubstituted aryl bound via C₁₋₃-alkylene, C₃₋₈-cycloalkyl or heteroaryl;

R⁰⁴ is selected from H, H provided with a protective group; respectively unsubstituted or singly or multiply substituted C₃₋₈-cycloalkyl, aryl or heteroaryl; -CHR⁶R⁷, -CHR⁶-CH₂R⁷, -CHR⁶-CH₂-CH₂-CH₂-CH₂R⁷, -C(Y)-CH₂R⁷, -C(Y)-CH₂-CH₂-CH₂-CH₂R⁷; or -R⁸-L-R⁹

where Y = O, S or H_2 ,

where R⁶ is selected from

H, saturated or unsaturated, branched or unbranched, singly or multiply substituted or unsubstituted C₁₋₇-alkyl;

and where R^7 is selected from

H; respectively unsubstituted or singly or multiply substituted C₃₋₈-cycloalkyl, aryl or heteroaryl,

where R⁸ is selected from

respectively unsubstituted or singly or multiply substituted aryl or heteroaryl,

where L is selected from

-C(O)-NH-, -NH-C(O)-, -C(O)-O-, -O-C(O)-, -O-, -S-or -S(O)₂-

where R⁹ is selected from

respectively unsubstituted or singly or multiply substituted aryl or heteroaryl,

and S^1 and S^2 independently of one another are selected from protective groups or together represent a protective group, preferably monoacetal.